



North Carolina General Assembly

ENVIRONMENTAL REVIEW COMMISSION

MINUTES

December 17, 2010

Welcome and Attendance

The Environmental Review Commission of the North Carolina General Assembly met December 17, 2009 in Room 544 of the Legislative Office Building.

Co-Chairman Pryor Gibson presided.

Also present with Co-Chairman Gibson was Co-Chairman Bob Atwater, Co-Chairman Daniel Clodfelter, Co-Chairman Lucy Allen, Senator Charlie Albertson, Senator Stan Bingham, Senator Ellie Kinnaird, Senator Floyd McKissick, Senator A. B. Swindell, Representative Pricey Harrison, Representative Carolyn Justice, Representative Ruth Samuelson, Representative Cullie Tarleton and Representative Edith Warren. Also present was advisory member Senator Fletcher Hartsell.

Staff present was Commission Counsel Jeffrey Hudson, Commission Counsel Jennifer McGinnis, Commission Counsel Susan Iddings, Commission Counsel Tim Dodge, Commission Analyst Jennifer Mundt, Research Assistant Mariah Matheson and Commission Clerk Jessica Kozma Proctor.

Co-Chairman Gibson called the meeting to order at 11:02 a.m. and welcomed members and guests.

A draft agenda was distributed electronically December 11, and redistributed December 14 due to computer problems. Mrs. Proctor sent an electronic reminder of the day's meeting on December 16. Co-Chairman Gibson asked for members to identify themselves. Membership followed suit, stating their home counties or towns. Chairman Gibson thanked members for their attendance and said that the Commission had a lengthy agenda, and for members to prepare themselves for this meaty agenda. He added that the day's subject, water, was one of the most important issues studied under the Commission's charge.

Introductory remarks by Co-chairmen

Having no additional comments added by Chairman Gibson's fellow chairmen, he moved to Item 3 of the Agenda.

Report to the Commission, explanation of agenda items, and a discussion of studies that the Commission is authorized to undertake

Chairman Gibson recognized Commission Counsel Jeff Hudson, who reviewed the day's agenda.

Report on the 2008 Agriculture Water Use Survey (G.S. 106-24 (b))

Chairman Gibson recognized Mr. Herb Vanderberry Director of the North Carolina Field Office of the National Agricultural Statistics Service of the United States Department of Agriculture. A copy of his presentation is attached to the minutes and may also be found online. Mr. Vanderberry began his presentation, a report on the 2008 North Carolina Agricultural Water Use Survey.

Reviewing the background of the study, Mr. Vanderberry noted that the recent drought of 2007 to 2008 increased awareness of water concerns and supplies in the State. He added that the 2008 legislation discussed at the meeting will better manage the State's water resources. Information from his presentation included a review of the State's drought of 2007. because of the drought, his presentation shows, there is an increased awareness of the State's water supply and legislation is currently before the General Assembly to better manage such water supplies. He then reviewed current legislative requirements, including an annual collection of water use data from operations using more than 10,000 GPD and that results are required to be published by July 1.

His survey was promoted via WebCast in September 2008. Community and county meetings, as well as work with the State's extension service. Basics of the survey include population selected from the 2007 Census of Agriculture. Some 9,000 forms were mailed to participants between January and February 2009, and that mailing was followed up with a telephone survey. In all, roughly 89 percent of those survey responded.

Among results, the survey concluded that the largest agriculture use is for irrigation. Irrigation use is "infrequent and seasonal," Mr. Vanderberry reported. Among the State's farms, agricultural irrigation is used between 12 to 16 days a month, despite surges in heat.

He continued his report and reviewed a chart of the State's water consumption by month for the year of 2008. Seasonal water use, he said, peaks in July, August and September of each year. Among agricultural users, it was reported that growers use more irrigation when working through rainfall shortages.

In beginning his conclusion to his report, Mr. Vanderberry said that the 2008 statewide study just reported on "is the first bench mark agricultural water use data." He warned, however, that caution should be used "when comparing the results to other data sources of non-agricultural water use."

Mr. Vanderberry finished his presentation. Co-Chairman Gibson thanked him and called for discussion among Commission members.

Representative Samuelson was recognized by the Co-Chairman. She asked how growers knew how much water they used on any given day. Mr. Vanderberry answered that hers was a very good question and that many farmer are required to keep records of

their water use. Livestock and poultry are required to report water use to their contracting companies.

Senator Bingham asked how many gallons of water are used on particularly hot days. Mr. Vanderberry said there was no data to measure such water use.

Having little more discussion, Co-Chairman Gibson thanked Mr. Vanderberry for his time. He then called on the next presenter.

Report on implementation of the State Water Supply Plan (G.S. 143-355 (n))

Co-Chairman Gibson recognized Mr. Thomas A. Reeder, Director of the Division of Water Resources (DWR) in the North Carolina Department of Environment and Natural Resources (NCDENR). A copy of his report is attached to the minutes and may also be found online at www.ncleg.net. Mr. Reeder, a familiar face to the Commission, thanked both Co-Chairman Gibson and the Commission for the opportunity to report today.

In beginning his presentation, Mr. Reeder reviewed the process to create a water quantity basin plan. This includes having water resource, agricultural survey, registration and other data. This information is used to create river basin modeling that eventually is molded into water quantity basin plans. He then reviewed the local water supply plan program.

In this program, the first plans were submitted in 1990, and an assessment of a water system's current and future needs was compiled. This information was compiled for local governments, community water systems with more than 1,000 connections or serving more than 3,000 users. Plans are updated every five years and there is an electronic reporting system to compile yearly data. Local water supply plans are submitted electronically and reviewed and approved by DWR. Mr. Reeder noted that the data from these plans are essential for river basin models.

Items considered for supply plans include system information, water use information, water supply sources, wastewater information, system projections to 2050 and water shortage response plans. In continuing his report, Mr. Reeder reviewed the withdrawal and reporting program. To note in this program, only non-agricultural withdrawals of 100,000 gallons or more are required to register, and agriculture operations withdrawing more than 1,000,000 are required to register. Registration is required regardless of ground or surface water withdrawals and annual reporting of water use for registered users is now required because of the 2008 Drought Bill. Addressing the agricultural survey, Mr. Reeder noted many items reported in the previous presentation. Continuing, water resource data comes from the State Ground Water Network, the NC-USGS Cooperative Program and the State Climate Office. He then reviewed two charts showing daily withdrawals, noting that residential public water systems withdrawal is the largest. Another chart was shown noting that the highest water withdrawals occur in the summer.

Mr. Reeder then reported on river basin plans. Reviewing benefits of the planning program, he noted that such plans identify potential problems or future shortfalls; potential conflict resolution; providing a valuable tool for local governments and for SEPA cumulative impact analysis. Mr. Reeder then looked at the consequence of a potential shortage of water. He said that projected demand "greatly exceeds" available

supply and that water plans have an opportunity for local “solutions” including improved comprehensive conservation and efficiency, potential regional solutions as well as new sources. Mr. Reeder finished his presentation. Co-Chairman Gibson called upon the Commission for discussion.

Co-Chairman Allen thanked Mr. Reeder and said that “was happy” to hear that aquifers recovered despite having once been told that they did not. Co-Chairman Clodfelter noted that since 2008, plans are in five year cycles, and asked if this is now linked to local land use plans. Mr. Reeder answered that he could not say that they were “absolutely consistent.”

Co-Chairman Clodfelter followed up and asked if looking at putting in a regime for withdrawals, the State needs to have the appropriate tools as quickly as we can. Co-Chairman Clodfelter then asked if the five year rules need to be submitted to allow faster development of river basin models. Mr. Reeder said that before the next update some guidelines would be created and that the Commission would be informed of them. Representative Justice thanked him for the presentation, calling it excellent, and asked how his Division helped growers and others withdrawing too much water. Mr. Reeder answered that DWQ could inform them that they are withdrawing too much water, and his Division has already helped many smaller local water systems. Representative Warren noted the Division’s good work, particularly with regard to Pitt County. With little other discussion, Co-Chairman Gibson noted that with what is currently in place, the State could effectively address a future drought. He then thanked Mr. Reeder.

Report on Basinwide Water Quality Management Plans

Co-Chairman Gibson then recognized Ms. Diane M. Reid, the Basinwide Planning Unit Supervisor in DWQ, DENR. A copy of her presentation is attached to the minutes and also may be found online at www.ncleg.net. Ms. Reid introduced herself and began her report explaining the purpose of river basin management plans. Such plans are helpful in protecting regional water quality, she said, and not just for improvement of areas where water quality is at risk. She then said that her Division is charged by the General Assembly to examine such water quality and looks at three to five basins a year, in conjunction with reporting cycles. Basinwide planning, as noted earlier by Mr. Reeder, began in 1990, and now includes effects of pollution and other factors in water quality. Also, her Division is charged with public awareness for water quality protection, she said.

In collecting data, her Division receives information from “inside” DWQ including information from ambient monitoring programs looking at chemical and physical factors. Also included is a fish program to identify protections for waters. Outside data, that the Division must be “comfortable with” may also be included.

In reviewing “purposes of basinwide water quality management plans, Ms. Reid noted that they include targeting area in need of additional water quality protection, better evaluating the cumulative effects of pollution, meeting EPA program reporting requirements, and improving public awareness and involvement.

Continuing her report, Ms. Reid noted that the State’s benefits are many. These include increased public understanding, better focused resources, improved ecological planning and integration of programs and agencies.

She concluded her report and was thanked by Co-Chairman Gibson. The Co-Chairman then called for discussion. Representative Justice said her Division was among her favorites. Representative Justice asked about job growth versus environmental consequences, and with all the data and information given, do people listen in the regulatory sector.

Ms. Reid said that her Division was a regulatory Division. She added that she felt her Division was heard “for the most part.” Co-Chairman Allen said she was concerned about future growth and its impacts. Her particular concern was clashes between development and watersheds. She asked if there were any efforts to look at these issues for future collaboration to allow for development, but without compromising water quality.

Ms. Reid answered that her Division is always looking to improve collaboration to improve water quality. She added that the move forward to work with water quality, merging plans, that would provide increased opportunity for participation.

Co-Chairman Gibson thanked Ms. Reid.

Discussion of stream and wetland mitigation issues, including treatment of projects with multiple environmental benefits

Co-Chairman Gibson recognized Ms. Robin W. Smith, Assistant Secretary for the Environment at DENR. Co-Chairman welcomed Ms. Smith. She reported on stream and wetland mitigation issues. A handout for her presentation is attached to the minutes and may also be found at the Commission’s website at www.ncleg.net.

Ms. Smith thanked Co-Chairman Gibson. She explained her handout, including a description of a mitigation site in order to better demonstrate what makes such a site. She explained the 50-foot buffer zone around a stream. Co-Chairman Gibson asked Ms. Smith to better explain wetlands mitigation. Ms. Smith reviewed types of mitigation, which may be found in her handout. Two federal programs are assisted by DWQ on permitting and approval issues, but the programs remain under federal oversight. She then reviewed nutrient offset programs, which include offsets where there are nutrient strategies already in place. Many “players” participate in these programs, including the Army Corps of Engineers.

Report on the progress of efforts to develop a nutrient management strategy for the Upper Neuse River Basin, including Falls Lake

Co-Chairman Gibson recognized Mr. John W. Huisman, Environmental Senior Specialist for the Upper Neuse River Basin (including Falls Lake), NCDENR. Mr. Huisman thanked the co-chairman and approached the podium. A copy of his presentation is attached to the minutes or may be found at the Commission’s website at www.ncleg.net.

Mr. Huisman began his report noting the recent history of Falls Lake. In 2004, he reported, a “focus” began on the lake’s condition. This resulted in ratification of S.L. 2005-190 (SB 981 and S.L. 2006-259. These two bills charged the Environmental Management Commission to adopt nutrient rules for Falls Lake based on a calibrated model. Mr. Huisman then reviewed a map showing the percentage of data exceeding

chlorophyll at a standard of 40 ug/liter. The northern part of the lake showed dramatically higher percentages compared to the southeastern part of the lake.

He then began reviewing recently ratified laws regarding the lake. S.L. 2009-486 again charged the EMC with adopting nutrient rules, setting deadlines and a secondary mandate to adopt temporary rules. Also, S.L. 2009-486 called for crediting early reductions, have tighter erosion and sediment control standards and required DENR to report on septic systems in the watershed. Mr. Huisman then reviewed a “strategy development process.” In this process two models were developed, involving a series of meetings as well as watershed and lake model to stakeholders of to the development process. Regarding the rulemaking process, Mr. Huisman reported that another series of meetings occurred, as well as the drafting of a fiscal note, Draft rules and the adoption of final rules to be approved no later than January 15, 2011. He reviewed a calendar of previous stakeholder meetings.

Moving back to Falls Lake nutrient data, Mr. Huisman reviewed 2006 estimated total nitrogen delivered load from its five watersheds. The majority of the load came from agricultural sources, the smallest, from the Department of Transportation. Reviewing the phosphorous load on the lake, agriculture again carried the largest share of the load with 46 percent.

Reporting on nutrient reduction goals, Mr. Huisman said that goals were set at a 40 percent reduction for nitrogen and 77 percent for phosphorous. With little more to report, Mr. Huisman completed his report and Co-Chairman Gibson called for Commission discussion.

Representative Samuelson was recognized. She commented that she was surprised that nutrient amounts declined as the lake went downstream. She asked Mr. Huisman to “educate” her on why this is. Mr. Huisman answered the majority of nutrients coming into the lake come from the northern part of the lake. “A lot more is going on with regard to the watershed,” he said, “there’s more being delivered.” He added the local governments may have other requirements to help reductions.

Update on the Neuse River fish kill, presented in conjunction with the annual report on fish kills during the preceding year

Co-Chairman Gibson then recognized Mr. Jason Green, an Environmental Senior Specialist with the Neuse River Rapid Response Team (DWQ). Mr. Green thanked Co-Chairman Gibson. A handout was distributed to membership. This handout is attached to the minutes and may also be found at the Commission’s website at www.ncleg.net.

Mr. Green began noting that there were 12 fish kill events in 2009, resulting in more than 13 million dead fish. In a major fall 2009 event, more than 10.2 million Atlantic Menhaden died within a 35 square mile area. This event lasted from September through October and was concentrated near New Bern on the lower Neuse River.

“We looked at a lot of dead fish this year,” Mr. Green said.

He then reported on the “behavior” of the estuary. In a chart showing low dissolved oxygen, Mr. Green showed that in the lower Neuse there are smaller amounts of “good oxygen,” typically less than 3 milligrams per liter. Where the river is at its most deficient is about 50 miles from New Bern. Reviewing salinity levels, the lower Neuse again had lower salinity closer to New Bern.

Menhaden, he reported, are prone to fish kills for several reasons. They are “small, sensitive fish” that swim in large, dense schools. Menhaden are also very susceptible to low dissolved oxygen. In determining the size of recent fish kills, Mr. Green reported that calibrated equipment were used, as well as sample collection and data review. Stressors examined after the 2009 fish kills included low dissolved oxygen, overcrowding of fish, toxic algae, ulcerative mycosis, parasite related stresses, and toxic compounds. In areas where fish kills occurred, nitrogen and phosphorus were elevated, as well as ammonia. In examining the fish themselves, no lesions, gill damage or other anomalies were observed. Mr. Green lastly reported that the cause of the 2009 fish kills was low dissolved oxygen stress. With little discussion ensuing, Co-Chairman Gibson thanked Mr. Green.

Annual report on activities associated with the Sedimentation

This item was displaced to be heard at the January Commission meeting. Co-Chairman Gibson thanked the Commission for their hard work and adjourned the meeting at 1:40 p.m.

Co-Chair Pryor Gibson
Presiding

Co-Chairman Dan Clodfelter

Jessica Kozma Bennett
Commission Clerk